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PHOTOGRAPHIC INTERPRETATION REPORT



MUNITIONS TEST ACTIVITY
LENINGRAD ARTILLERY
RESEARCH AND
DEVELOPMENT RANGE
USSR

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FEBRUARY 1970

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INSTALLATION OR ACTIVITY NAME Munitions Test Activity, Leningrad Artillery Research and Development Range		COUNTRY UR
UTM COORDINATES NA	GEOGRAPHIC COORDINATES 60-00N 030-31E	
MAP REFERENCE ACIC. US Air Target Chart, Series 200, Sheet 0103-25, scale 1:200,000 SAC. US Air Target Chart, Series 200, Sheet 0153-4, scale 1:200,000		
REQUIREMENT NA		NPIC PROJECT 250641

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ABSTRACT

Two probable controlled-fragmentation munitions test arrays and two fragmentation munitions test cells were observed at Leningrad Artillery Research and Development Range on photography of August 1968. The type and size of the test arrays indicate that the range is involved in testing and developing subcomponents for advanced fragmentation munitions, probably for artillery rounds or grenades. These test arrays, which consist of numerous panels usually arranged to form four concentric circles, had previously been observed in the USSR at Krasnoarmeysk Solid Motor and Munitions Development Facility in August 1968. Improved conventional munitions testing of this type probably began at this range between May 1966 and August 1968, during which time two partially revetted control buildings and a security fence had been built at one of the test areas.

This report describes and gives the dimensions of the test arrays and test cells, includes annotated photographs of the test areas, and provides chronology of their photographic coverage.

INTRODUCTION

Analysis of Leningrad Artillery Research and Development Range, USSR (Figure 1) on the east-northeast edge of Leningrad indicates that this installation could be involved in research and testing of improved conventional munitions (ICM). Two test arrays (Figure 2), similar to arrays used by the U.S. for static testing of controlled-fragmentation munitions, and two circular fragmentation test cells have been identified at the range in August 1969. Improved conventional munitions test arrays of this type were first observed in the USSR at Krasnoarmeysk Solid Motor and Munitions Development Facility¹ in August 1968.

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In August 1969, the Leningrad Research and Development Range consisted of three test areas, a rangehead with a total of three firing lines (only one of which appeared to be active), numerous control buildings and bunkers, a large impact area with numerous craters (none of which appeared to be of recent origin), and an associated munitions storage area with 14 buildings. The range support area, immediately south of the rangehead, is served by two rail spurs and contains a munitions loading facility, shop buildings, maintenance facilities, a motor pool, storage buildings, and support buildings.

Installations in the vicinity of this range are Leningrad Ammunition Loading and Storage Kr. Znamets [redacted], Leningrad Solid Motor Test Facility 1 [redacted], Leningrad Army Barracks Murino AL 13 [redacted], Toksovo Propellant R&D Facility [redacted] and Leningrad Chemical Plant Okhtenskiy [redacted].

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DESCRIPTION

Test Areas 1 and 2 are shown in Figure 2 with a drawing of controlled-fragmentation munitions test array probably used for testing improved conventional munitions. Test Area 3 is shown in Figure 3 and contains two fragmentation test cells.

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Test Area 1 (top of Figure 2)

One of the controlled-fragmentation munitions test arrays is constructed in a revetted former small-arms firing range at the southeast corner of the rangehead. The test array consists of four concentric circles of probable fragment-collection panels or witness panels.

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Test Area 2 (bottom of Figure 2)

The second controlled-fragmentation test array is in a fenced area approximately 5 nautical miles (nm) north of the rangehead, at a former artillery firing line. This array consists of at least three concentric circles of fragment-collection panels, but a fourth circle at the center has possibly been obliterated by testing.

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This test area also contains two partially revetted control buildings, one support building, five possible instrumentation and observation points, one overhead crane (which is a remnant of the former artillery firing line), and several circular ground scars that are probably sites of previously used test arrays.

Test Area 3 (Figure 3)

Two test cells of the type commonly used to test standard fragmentation munitions at most munitions test areas in the USSR are located approximately 6 nm north of the rangehead. Each cell consists of numerous panels joined to form a circle

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CHRONOLOGY

When Leningrad Artillery Research and Development Range was covered in May 1966 on small-scale photography of good interpretability, no evidence of fragmentation testing was observed. The control buildings later observed at Test Area 2 were not present.

The first indication that the range might be involved in the testing of improved conventional munitions was observed in August 1968 at Test Area 2. The fence which separates this test area from the range was present and the revetment and two control buildings were observed for the first time.

Not until January 1969 was the first clear, large-scale photography covering all three test areas available. At Test Area 1, no activity could be related to controlled-fragmentation testing. In Test Area 2, the five possible instrumentation and observation points were observed, and trenching was apparent from the partially revetted control building to the testing area. In Test Area 3, the fragmentation test cells were also observed.

Photography of April 1969 covered the three test areas, but Test Area 1 was hazy and uninterpretable. Test Area 2 was also hazy, but the buildings and trenching were visible and no test arrays were observed. Near the two test cells in Test Area 3, several panels were lying flat and leaving small gaps in the test cells. Two rows of additional panels were observed near the cells. One row of six closely spaced panels was immediately north of a test cell; the second row was made up of seven panels parallel to the first row and approximately 119 meters (390.4 feet) to the east.

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The only time controlled-fragmentation test arrays were observed in Test Areas 1 and 2 was on photography of August 1969, the most complete high-resolution coverage of the range.

In November 1969, only Test Area 1 was covered and the controlled-fragmentation test array did not appear to be present. The three test areas were also covered on the most recent photography (December 1969), but only the two test cells in Test Area 3 can be identified because of the snow cover and the small scale of the photography.

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REFERENCES

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MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0103-25, scale 1:200,00
SAC. US Air Target Chart, Series 200, Sheet 0153-4, scale 1:200,00

DOCUMENTS

1. NPIC. Munitions Test Activity, Krasnoarmeysk, USSR,
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REQUIREMENT

NPIC Project 250641

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